

## A NEW SUBSPECIES OF *PTILOTUS DISTANS* (R.BR.) POIR. IN QUEENSLAND

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### Abstract

*Ptilotus distans* (R.Br.) Poir. hitherto treated as a uniform species is divided into two subspecies. Subsp. *capensis*, described as new, is confined to north Queensland, while subsp. *distans* occurs in the Northern Territory and Western Australia.

In the course of studies on *Ptilotus* R.Br. I found that *P. distans* does not appear as a uniform taxon but is significantly developed in two infra-specific forms. The species is characterised by virgately erect, subglabrous, simple or few-branched stems up to 80(–105) cm tall, sparsely foliated with narrow-linear leaves, stems and branches terminating each in an interrupted spike of (5–)8–15(–25 × 1–1.5(–3) cm, with dull green silver-hairy flowers (red streaked when fresh) varying in number (4 to more than 20), 1–2.5 cm apart but crowded toward the apex of luxuriant plants with spikes drooping when mature.

A superficial glance into the plumose perianth reveals a most striking diversity in the sexual organs (fig. 1); but there are differences in other respects too, e.g. regarding the shape of bracts and sepals. Specimens with long-styled flowers have been collected only in Queensland (in and near Cape York Peninsula), whereas those with short-styled flowers came from Northern Territory at distances of more than 600 km from the Queensland places (fig. 2). In addition there is a location in Dampier Archipelago, Western Australia. Because specimens with intermediate characters could not be found *P. distans* is divided. The protologue of *P. distans* refers to R. Brown's no. 3054 (BM; E,K) from 'North Coast', which has short styles. Therefore I feel justified in distinguishing the Queensland taxon as a subspecies.

***Ptilotus distans* (R.Br.) Poir. subsp. *capensis* Benl, subspecies nova, a subsp. *distans* filamentis staminum longioribus (8–9.5 mm longis), stylo longiore (ca 7.5 mm longo), cupulae margine longe ciliato pilis rectis septatis usque 3.3 mm longis differt (fig. 1). **Typus:** Cook District: Thursday Island, June 1897, *F. M. Bailey* (BRI, holo).**

Flower bracts narrow-lanceolate, to 5.2 × 1.5 mm, minutely ciliate all along the margins; bracteoles to 6.3 × 2.2 mm with entire margins. (In ssp. *distans* the bracts and bracteoles ovate, the sharper pointed bracts with marginal cilia only in upper half or wanting.) Tepals linear-lanceolate, nearly free down to base, outer ones up to 15 × 1 mm (in subsp. *distans* broader near the base), apices of tepals subtruncate and irregularly denticulate (in subsp. *distans* acuminate) mostly projecting beyond the inhomogeneous pubescence. Stamens all fertile or more often one (rarely two) shorter and sterile, staminodes well visible. (Staminodes in subsp. *distans* much shorter, usually concealed by the copious hairlets surrounding the staminal cup on its outer distal face.) Filaments filiform, 8–9.5 mm long (fig. 1 A a), scarcely dilated toward the base; in subsp. *distans* ± ligulate in lower part, 2.5–3 mm long (fig. 1 B a) and broadened at the base. Cupula ca 1.5 mm high, only basally attached to the tepals, margin irregularly fringed and long ciliate with straight, up to 3.3 mm long, septate hairs fasciculately arising outside and somewhat continued on the filaments when young; pseudostaminodes lacking. (In subsp. *distans* the marginal hairs shorter, ca 1.4 mm long but more copious and less distinctly fasciculate.) Anthers pale yellow, 1.5–1.8 × 0.2 mm (fig. 1 A a). Ovary subsessile obovoid, ca 2 × 1.2 mm, comosely hairy on the ± attenuate apex, the hairs distinctly articulate to 2.4 mm long and somewhat continued on the style; in subsp. *distans* the ovary large (ca 2.5 × 1.8 mm), roundish at the apex and shortly pubescent in upper half by simple hairlets 0.2–0.3 mm long. Style (fig. 1 A b) slightly eccentric ca 7.5 mm long and 0.1 mm diam. in the middle; the stigma inconspicuous. (In subsp. *distans* (fig. 1 B b) the style 1.3–2.2 mm long; the stigma conspicuous, capitate-papillose, in both subspecies ± level with the anthers.) (Fig. 1. Map 1)

COOK DISTRICT: Thursday Island, Jun 1897, *F. M. Bailey* s.n. (BRI); Newcastle Bay, 4 km S of Somerset, 20 m alt., May 1948, *L. J. Brass* 18699 (CANB, K); Badu Island, Torres Strait, alt. 250 m, Dec 1976, *E. Cameron* 2591 (QRS); Thursday Island, 1891–1893, *G. Podenzana* s.n. (BM); Goode Island, in 1882, *Powell* 14 (MEL). NORTH KENNEDY: Cape River, no date, *E. Bowman* s.n. (NSW); Rockingham Bay, no date, *J. Dallachy* 15241 (BM, K, MEL); Rockingham Bay, no date, *F. Mueller* s.n. (BM, BRI, L, MEL, P, S); Bullock Creek, Etheridge Railway, Feb 1922, *C. T. White* 1427 (BRI, NSW).

*Ptilotus distans* subsp. *capensis* preferably occupies open sandy headlands and disturbed grassland behind beaches; subsp. *distans* has also been recorded from lateritic soil along roadside and cleared areas in open eucalypt communities or mixed low forest.

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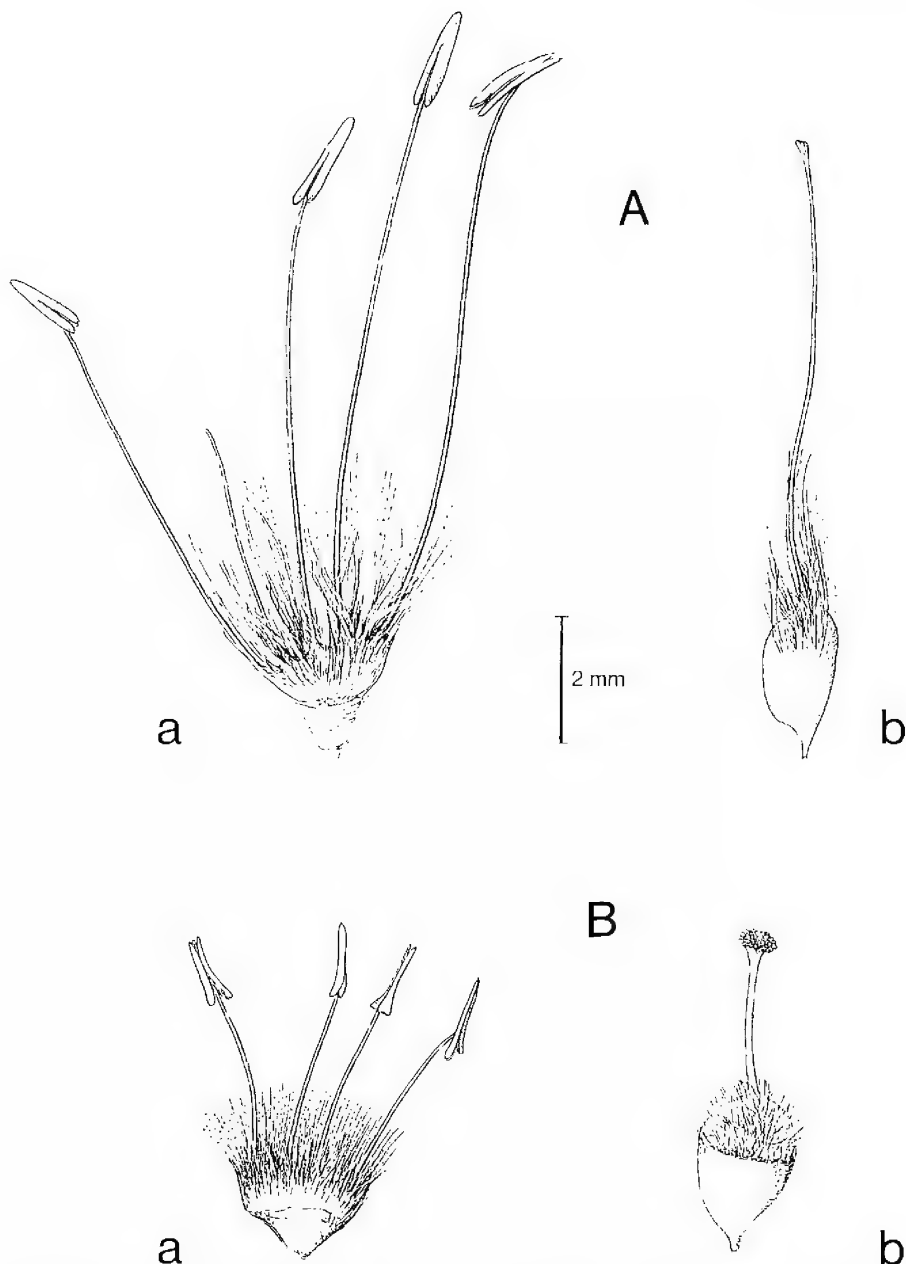
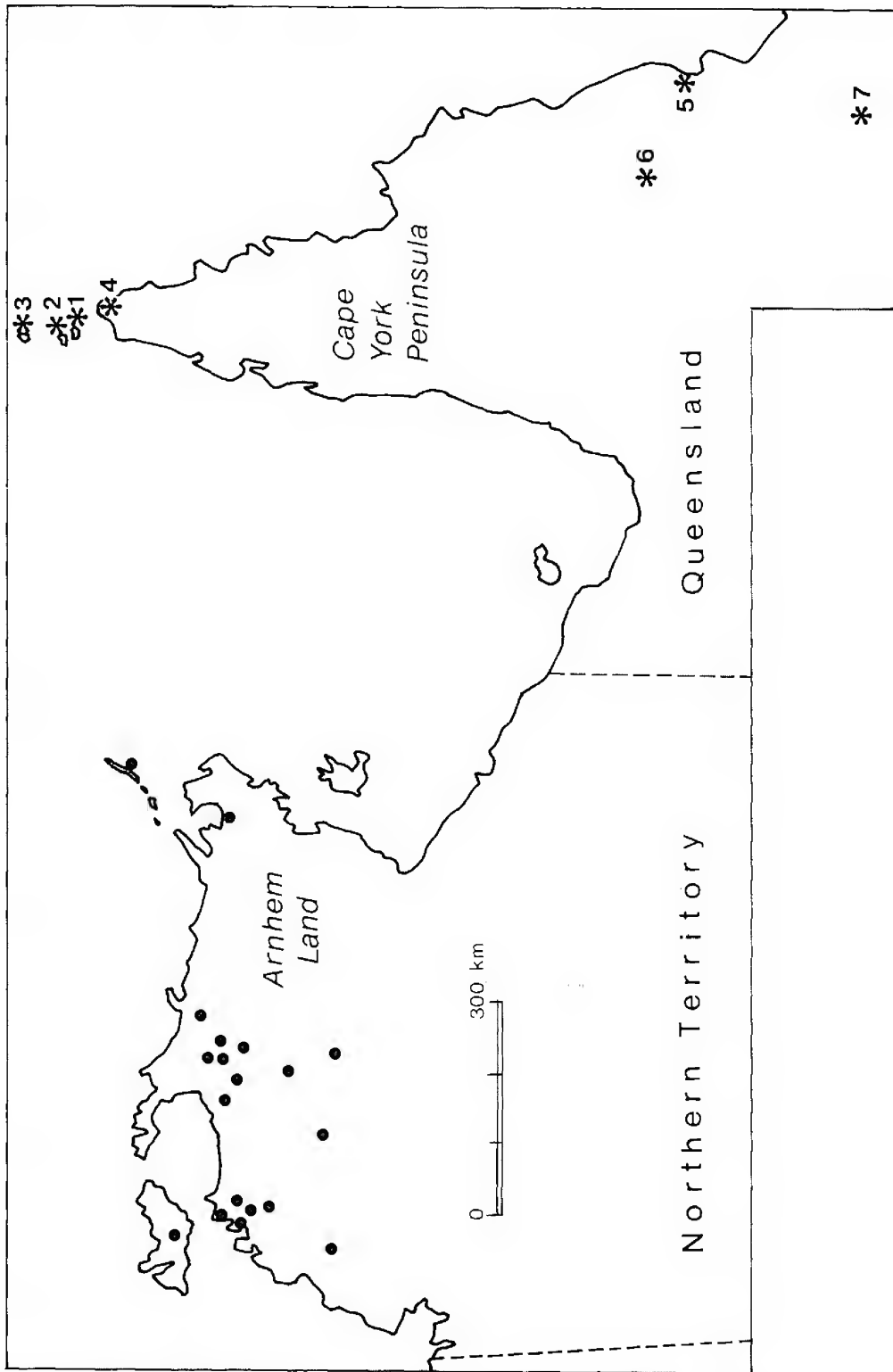


Fig. 1. *Ptilotus distans* (R.Br.) Poir. A, subsp. *capensis* Benl. (a) Androecium spread open, outer face; (b) Gynoecium. B, subsp. *distans*. (a) Androecium cut open, outer view; (b) Gynoecium.



Map 1. Distribution of *Ptilotus distans*.

• subsp. *distans*

\* subsp. *capensis*. 1—Thursday Is.; 2—Goode Is.; 3—Badu Is.; 4—Newcastle Bay; 5—Rockingham Bay; 6—Bullock Creek; 7—Cape River.